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REPORT OF THE DIRECTOR FOR THE YEAR 1925

BY

BARTON WARREN EVERMANN

Director of the Museum and of the Aquarium

The annual report of the Director for the year 1924 was presented to the Academy at the annual meeting, February 18, 1925.

The scientific and educational activities of the Museum were maintained during the year 1925 in a satisfactory manner. The members of the scientific staff have been active not only in adding to the collections in their respective departments but also in arranging and classifying the collections and in research work.

PERSONNEL

The personnel of the Museum staff has not greatly changed. Mr. Frank Yale, who had been in the service of the Academy many years, died March 12, 1925. Miss Margaret Dold, Library Assistant, resigned May 28 to accept a position in the Mechanics Institute Library; Frank Ashworth, assistant janitor, left January 8, 1925, and was succeeded by Ralph Borden January 12, who remained until February 22, when he was replaced by M. D. Phillips, who remained only a short time when William E. Nicholson served a few days, when he was followed by C. A. Bellas June 1 to August 31, Milward Lavin July 13 to September 4, and Hugh R. Jones September 12.

On July 1, the Department of Fishes was established with H. Walton Clark as Assistant Curator.

The employes of the Museum on January 1, 1926, were as follows: Dr. Barton Warren Evermann, Director and Executive Curator of the Museum, Editor of the Academy publications and Director of the Steinhart Aquarium; W. W. Sargeant, Secretary to the Board of Trustees; Miss Susie M. Peers, Secretary to the Director; Joseph W. Hobson, Recording Secretary; Mrs. Constance W. Campbell, office assistant.

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part time; Raymond L. Smith, office assistant; Miss Mabel E. Phillips, check-room attendant; Miss Alice Eastwood, Curator, and Mrs. Kate E. Phelps and Miss Clara Tose, assistants, Department of Botany; Edward P. Van Duzee, Curator; Dr. F. R. Cole, Curator in Dipterology; Hartford H. Keifer, Assistant Curator, and J. O. Martin, temporary assistant, Department of Entomology; H. Walton Clark, Assistant Curator, Department of Fishes; Joseph R. Slevin, Assistant Curator, Department of Herpetology; Dr. G. Dallas Hanna, Curator; Eric Knight Jordan, Assistant Curator, and Leo G. Hertlein, temporary assistant, Department of Paleontology; Joseph Mailliard, Curator, and Miss Mary E. McLellan, Assistant Curator, Department of Ornithology and Mammalogy; Dr. Walter K. Fisher, Curator, Department of Invertebrate Zoology; Frank Tose, Chief Taxidermist, and James F. Campbell, Russell Hendricks, Chandler Smith, Cecil Tose, Ralph Keating, Douglas Kelly, and Mrs. A. M. Hill, student assistants, Department of Exhibits; Edward P. Van Duzee, Assistant Librarian; C. A. Bellas, Library Assistant; William C. Lewis, janitor; Hugh Jones, assistant janitor; Mrs. Johanna E. Wilkens, charwoman; Patrick O'Brien, day watch; Archie McCarte, night watch.

ACCESSIONS TO THE MUSEUM AND LIBRARY

The accessions to the museum and library have been, as in former years, many and valuable. An itemized list is given in the appendix to this report (pp. 549-559). A few of the more notable are mentioned in the President's report (p. 516).

COOPERATION WITH PUBLIC AND PRIVATE SCHOOLS, WITH OTHER INSTITUTIONS, AND WITH INDIVIDUALS

Cooperation of the Academy with the schools, other institutions, and individuals continues close and mutually helpful. An arrangement was made with Mrs. Anna V. Dorris, in charge of visual instruction in the public schools of Berkeley, whereby the following portable habitat groups were prepared for use in the Berkeley public schools: Western Robin, Western Meadowlark, San Francisco Towhee, California Shrike, California Woodpecker, Gila Woodpecker, Barn Owl,

Marsh Birds, Spring Pocket Mouse, Chickaree, Golden-mantled Ground Squirrel, California Ground Squirrel, and Weasel. These have been in constant use during the year. It is hoped that other groups may be prepared this year.

VISITORS TO THE MUSEUM IN 1925

The total number of visitors to the Museum in the calendar year 1925 was 553,423, the greatest in the history of the Museum with the exception of 1924, when it was 646,033.

The number of visitors by months and years since the opening, September 22, 1916, is shown in the following table:

Month	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925
January ..	.....	23170	25260	17241	27013	25755	19038	15270	32364	34989
February .	.....	22058	23698	17586	23450	25679	18534	20529	44439	29295
March ....	.....	31606	26810	27397	25419	28279	27922	26341	39935	39168
April ....	.....	32175	23274	25994	32208	24939	36057	21911	41332	40257
May .....	.....	26154	26391	28369	37107	25517	27237	37597	48152	38137
June .....	.....	32123	29843	32248	36207	29406	27131	39511	58281	51775
July .....	.....	37193	31420	48028	52492	43186	36263	64530	91329	69921
August ...	.....	24619	31137	43730	53470	39422	34787	50849	105130	77847
September .	16448	27866	29847	34007	42013	31458	28408	69870	82814	63737
October ..	36933	20629	14743	30463	33500	24861	19459	66894	43074	40418
November .	27718	21810	8531	25246	19347	18593	19080	48766	37611	35634
December .	15002	21693	19588	21188	21340	15062	13339	36707	21572	32245
Total...	96101	321096	290542	351497	403566	332157	307255	498775	646033	553423

Total number of visitors since opening, September 16, 1916, has been 3,800,445.

The public and private schools of the state continue to avail themselves of the educational uses of the Museum and the research collections.

The number of schools visiting the museum is so great that we cannot print the list, much to our regret. The following summary must suffice:

Schools of San Francisco:

Total Number Visiting Pupils.....	5643	5643
Total Number Visiting Teachers.....	169	
Total Number Visiting Classes.....	184	

Schools Outside of San Francisco:

Total Number of Pupils.....	1373	1373
Total Number of Teachers.....	48	
Total Number of Classes.....	55	

MUSEUM ACTIVITIES AND GROWTH

The past year has witnessed commendable activity in each of the several departments of the Museum. The various curators and their assistants have shown great zeal and industry and have made excellent progress in the orderly arrangement and care of the collections in their charge. The field work was unusually extensive and productive, as set forth in detail in the respective departmental reports; mention need be made here of only a few of the more notable activities.

The U. S. S. *Ortolan* Expedition of the California Academy of Sciences to the Revillagigedo Islands was one of the most important ever sent out by the Academy. Our scientific staff for several years had been casting longing eyes toward that interesting group lying 300 to 600 miles off the Pacific coast of Mexico. As no very careful study had ever been made of the fauna and flora of those islands, it was believed that an expedition to them would yield results of considerable scientific importance and interest and add greatly to the natural history collections of the Museum.

Upon making our wishes known to the U. S. Navy Department, Secretary Curtis D. Wilbur very generously detailed the U. S. S. minesweeper *Ortolan* for the use of the Academy in making the survey.

The *Ortolan* outfitted at Mare Island Navy Yard, from which place she sailed on April 15, with M. M. Nelson, Lieutenant, U. S. Navy, in command.

The Academy was represented by the following: Dr. G. Dallas Hanna, curator of paleontology, in charge; Mr. Joseph R. Slevin, assistant curator of herpetology, assistant chief; Frank Tose, chief taxidermist; Hartford H. Keifer, assistant curator of entomology; Eric Knight Jordan, assistant curator of paleontology; H. L. Mason, botanist; John T. Wright, collector in ornithology and mammalogy; Raymond Duhem, official photographer.

Upon arriving at San Diego, where the *Ortolan* stopped to take on certain supplies, the scientific staff was joined by Professor Francisco Contreras, Director Museo Nacional de Mexico; Dr. Octavio Solis, Director of the Botanical Garden

of Chapultepec, Mexico, and Professor José Maria Gallegos, who accompanied the expedition as representatives of the Mexican government and as guests of the California Academy of Sciences.

Mention should be made of cooperation with the Scripps Institution for Biological Research whereby the Academy undertook to secure for the Institution samples of water and plankton at intervals along the route of travel.

A detailed general report of the expedition will be published soon.¹ The extensive collections obtained have been assigned for study and report to specialists in the various groups; their reports will be published in the Academy's Proceedings. Let it suffice to say at this time that the Expedition visited each of the islands of the Revillagigedo group (Clarion, Socorro, Roca Partida and San Benedicto), also Guadalupe Island to inspect the elephant seal rookery there, several islands of the Tres Marias archipelago, and a number of islands and stations in Lower California were visited en route northward and valuable collections made at each. This expedition, which returned to San Francisco June 10, is regarded as the most important and most successful the Academy has ever sent out.

Curator Mailliard of the Department of Ornithology and Mammalogy carried on field investigations in Siskiyou County, northern California, in May and June, in Placer County in June, July and December, and in Modoc County in September and October which resulted in important additions to our knowledge of the birds and mammals of those regions.

In September and October Assistant Curator Miss McLellan carried on investigations in the states of Sinaloa and Mayarit, Mexico, during which she obtained an excellent series of the birds of that region which will prove of much value in the study of the collections obtained at the Tres Marias Islands by the *Ortolan* expedition.

The growth of the Department of Entomology has been unprecedented. The additions to the Department's collections total more than 182,000 specimens. These include the Blaisdell collection of 100,000 Coleoptera and the Van Duzee collection of 30,000 Hemiptera.

¹ This report has now been published. See Vol. XV, No. 1, pp. 1-113, of these Proceedings.

The additions to the collections in the Department of Herpetology numbers 3,253 specimens of reptiles and amphibians.

The Herbarium under Miss Eastwood's able and energetic management has grown by leaps and bounds and now numbers more than 138,000 sheets of mounted specimens.

The growth of the Department of Paleontology has been no less notable. The additions to the collections have been many and important, perhaps the largest being a very large and valuable series of minerals, fossils, and shells from the Philippines, Java, and Sumatra donated by Dr. Roy E. Dickerson, for several years the efficient and energetic curator of the Department.

The Department of Exhibits has been active in the preparation and installation of new habitat groups, chiefly of the small panel type, of which the following were completed within the year: California Woodpecker, Lazuli Bunting, Point Reyes Mountain Beaver, and Warner Mountain Cony. These are all excellently done and are very attractive exhibits.

The Library has received a good number of accessions by gift, exchange and purchase, the total being about 967 volumes and about 100 pamphlets.

For a number of years no binding was done, but this year 1163 volumes were bound at a cost of \$1,614.75.

USE OF THE ACADEMY LIBRARY AND COLLECTIONS BY INVESTIGATORS AND STUDENTS

Use of the Academy library and the educational and research collections in the respective departments increases each year. While many of our members make use of the library, it is believed that many others would do so if they realized how well the library is now supplied with current scientific periodicals, outing magazines, standard works of reference, and recent authoritative publications in the various departments of physical and biological science. It is hoped that our members may get in the habit of visiting the library when they desire information in any department of science which can be found in our publications. Members and their friends are cordially invited to visit the various department laboratories and collections when they wish to see any species of animal or plant of

which we have specimens. In some of our departments the collections are quite extensive and the visitor will probably find specimens of the particular species he wishes to see.

Troop 20 of the Boy Scouts under Scout Master Harold E. Hanson, continues to meet weekly in the Academy's Auditorium. The Academy is glad to be able to extend this courtesy to the Boy Scouts. Various other organizations have from time to time held special meetings in our Auditorium.

CONSERVATION OF WILD LIFE

The Committee on the conservation of wild life has been active during the year. The annual meeting of the Committee was held February 10, 1926, at which reports of the various volunteer observers were read. The census of big game animals in each region where the Academy has an observer, is as follows:

Mountain Sheep

Inyo Mountains east of Big Pine, Edwin H. Ober, observer...42
 Riverside and San Bernardino counties, E. L. Hedderly, observer.72
 Mt. San Antonio, Los Angeles County, A. T. Shay, observer...18

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Antelope

Mt. Dome, Siskiyou County and adjacent territory, John O. Miller, observer175
 Lassen County, W. G. Durbin, observer..... 26
 Fresno County; no report
 Kern County, Los Angeles Refuge, E. L. Hedderly, observer...11

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Valley Elk

Kern County, Miller and Lux herd, L. E. Nance, observer....800
 Yosemite Paddock, W. B. Lewis, observer..... 13
 Colusa and Yolo counties, C. Swanson, observer..... 15
 San Luis Obispo County, C. C. Rossi, observer..... 11
 Monterey County, C. S. Olmsted, observer..... 30
 Laguna Mountains, San Diego County, Dr. Harry M. Wegeforth, observer 35

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NATIONAL PARK REPORTS

Yellowstone National Park, Horace M. Albright, Supt.

Elk: Park, North herd.....	17,242	
Jackson Hole	19,442	
		36,685
Buffalo: Lamar River.....	753	
Cold Creek	125	
		878
Antelope		417
Mountain Sheep:		
Actual count	195	
Estimated	600	
		795
Moose:		
Actual count	170	
Estimated	525	
		695
Mule Deer	1,800	
Whitetail Deer	12	
Black Bear	200	
Grizzly Bear	75	

Grand Canyon National Park, J. Ross Eakin, Supt.

Mountain Sheep, estimated	500
Antelope, actual count	9
Deer, estimated	2,720
This does not include the Kaibab herd of deer which contains about	5,000

Zion National Park, Richard T. Evans, Supt.

Mountain Sheep, estimated	100
Mule Deer	500

McKinley National Park, Henry P. Karstens, Supt.

Caribou, estimated	30,000
Mountain Sheep	10,000
Grizzly Bear, quite plentiful.	
Moose, not common in Park.	

Glacier National Park, Charles J. Kraebel, Supt.

Moose, count	69
Elk, count	567
Deer, Blacktail, count.....	764
Deer, Whitetail, count	1,311
Mountain Sheep, count	724
Mountain Goat, count	943
Bear, Grizzly, count	51
Bear, Black and Brown, count	76

Crater Lake National Park, Charles Goff Thomson, Supt.

Bear	9
Deer, Blacktail	60

Rocky Mountain National Park, Colorado, Roger W. Toll, Supt.

Deer, Blacktail, estimated	3,000
Mountain Sheep, estimated	400
Elk, estimated	200
Bear, Black and Brown.....	35

Rainier National Park, Owen A. Tomlinson, Supt.

Deer, Blacktail, count	350
Mountain Goat, count	250
Bear, Black, count	200
Elk, count	15

M. HALL McALLISTER, *Chairman.*

STEINHART AQUARIUM

The activities of the Aquarium for 1925 are fully covered in the report of the Superintendent. Let it suffice to say here that the Aquarium continues to grow in attractiveness and popular interest. The number of visitors for the year exceeded one million, including 382 school classes in charge of 350 teachers and containing 9,866 pupils.

The interest which the public takes in the Aquarium is shown not only by the large number of visitors but in many other ways; for example, various persons have given to the Aquarium within the year a total of 728 fishes, turtles, snakes and other live animals. On the other hand the Aquarium has given to schools and individuals during the year a total of 1,858 small aquarium fishes and other objects.

The Academy in this way encourages the use of small balanced aquariums in homes and schools.

AQUARIUM PERSONNEL

A number of changes in the personnel of the Aquarium have taken place within the year, due chiefly to resignations on account of the inadequate salaries paid. The employes with scarcely an exception have been and are efficient and industrious, performing their respective duties with enthusiasm and pride, but better salaries must be paid if we are to retain the most efficient.

The present personnel is as follows:

Dr. Barton Warren Evermann, Director, part time; W. W. Sargeant, Secretary, part time; Susie M. Peers, Secretary to the Director, part time; Mrs. Constance W. Campbell, office assistant, part time; Alvin Seale, Superintendent; Wallace Adams, Assistant Superintendent; Herbert Brandt, collector; Clynt S. Martin, chief engineer; Warren R. Hayes, assistant engineer; P. E. Shepherd, assistant engineer; S. J. Shenefield, carpenter and general utility man; Charles Brandt, chief attendant; C. E. Guidry, assistant attendant; Robert J. Lanier, electrician and assistant attendant; Patrick O'Neill, janitor; Frank J. Maxwell, assistant janitor; Dora Arnold, doorkeeper; James Kavanaugh, police officer.

ACKNOWLEDGMENTS

As in the past, many courtesies and favors of one kind or another have been shown the Academy by various organizations and individuals. Space does not permit individual acknowledgments of all, but the Academy is grateful to all who have helped it in any way and who have shown interest in its work. First, to those who have contributed to the educational program of the Academy by giving one or more lectures in our Sunday afternoon and Wednesday evening lecture courses, the grateful thanks of the Academy are due; also to those who have donated specimens to the departments or books to the library. Special mention should be made of the deep interest which the Southern Pacific Company, the Atchison, Topeka and Santa Fe Railway System, and the Los Angeles Steamship Company have shown in the scientific and educational work of the Academy. Each of these companies has

rendered material assistance to members of the staff in connection with their field studies of the fauna, flora, paleontology and geology of the state, and in making collections of live fishes for the Steinhart Aquarium. With their generous cooperation the Academy is able to carry on its research and educational work much more comprehensively and thoroughly than would otherwise be possible.

PUBLICATIONS BY THE MUSEUM STAFF

The following bibliography lists the papers published by the Museum and Aquarium staffs in the year 1925. In the case of Dr. Hanna it includes his 1924 titles inadvertently omitted from the annual report for that year.

Clark, H. Walton.

1. *Lymnaea auriculata* (Linn.) in California. <Nautilus, Vol. XXXVIII, No. 4, pp. 125-126, April, 1925 (With G. Dallas Hanna).

Eastwood, Alice

1. The Madroño. <California Out of Doors (Tamalpais Conservation Club organ), January, 1925.
2. Sequoia versus Eucalyptus. <California Out of Doors, April, 1925.
3. The Rose Family on Mount Tamalpais. <California Out of Doors, July, 1925.
4. The Aftergrowth of a Mountain Fire. <California Out of Doors, January, 1926.
5. Review of R. S. Ellsworth's The Giant Sequoia. <Bull. Sierra Club, Vol. XII, No. 2, pp. 204-205, 1925.
6. Annual Report, Department of Botany for 1924. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, No. 28, pp. 467-468, May 29, 1925.

Evermann, Barton Warren

1. Save the Elephant Seals. <Catalina Islander, January 21, 1925.
2. Pollution of the Sea. <Mid-Pacific Magazine, Vol. XXIX, No. 3, March, 1925, pp. 563-565.
3. Report of the Director of the Museum (of the California Academy of Sciences) for the year 1924. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, No. 28, pp. 411-487, May 29, 1925.
4. Are Elephant Seals destructive to the fisheries? <California Fish and Game, Vol. XI, No. 2, April, 1925, pp. 78-79.

5. The Steller Sea Lion Rookery on Año Nuevo Island, California, in 1924. (Joint author with G. Dallas Hanna). <Journal of Mammalogy, Vol. VI, No. 2, May, 1925, pp. 96-99, pls. 8-10.
6. John Van Denburgh, 1872-1924. <Science, N. S., Vol. LXI, No. 1585, May 15, 1925, pp. 508-510.
7. Museum of the California Academy of Sciences. <Municipal Record, San Francisco, Vol. XVIII, No. 33, p. 268, August 13, 1925.
8. Steinhart Aquarium (of the California Academy of Sciences). <Municipal Record, San Francisco, Vol. XVIII, No. 33, p. 276, 1 plate, August 13, 1925.
9. Earthquake Studies. <The Commonwealth, Vol. I, No. 17, pp. 205-206, September 1, 1925.
10. Natural Fisheries Resources of the Sea (chiefly of the Pacific) whose Conservation will require International Cooperation. <Fur Industry Year Book 1925, pp. 62-66.
11. The Marine Mammals of the Pacific. <The Columbia Port Digest, November, 1925, pp. 5-6.
12. A Check List of the Fishes of Hawaii (Junior author with David Starr Jordan). <Journal of the Pacific Research Institution, Vol. I, No. 1, January (December 31, 1925), 1926, pp. 2-15.
13. The Steinhart Aquarium. <The Amateur Aquarist, Vol. I, No. 10, winter 1925-26, pp. 113, 120 and 121.

Hanna, G. Dallas

1. *Succinea avara* Say, from the Pleistocene Tar Pits of California. <Nautilus, Vol. XXXVII, No. 3, p. 106, January, 1924.
2. Review of, "The Mollusca of the Southwestern States, XI." By Henry A. Pilsbry & James H. Ferriss. <Proc. Acad. Nat. Sci. Phila., Vol. LXXV, pp. 47-103, 1923. <Nautilus, Vol. XXXVII, No. 3, p. 107, January, 1924.
3. Sperm Whales at St. George Island, Bering Sea. <Journal of Mammalogy, Vol. V, No. 1, p. 64, February 9, 1924.
4. Temperature Records of Alaska Fur Seals. <Journal of Physiology, Vol. LXVIII, No. 1, pp. 52-53, March, 1924.
5. Rectifications of Nomenclature. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, No. 10, pp. 151-186, March 18, 1924.
6. Freshwater Mollusks of Eagle Lake, California. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, No. 7, pp. 131-136, 1 pl., March 18, 1924.
7. Description of a New Genus and Species of Freshwater Gastropod Mollusk (*Scales petrolia*) from the Etchegoin Pliocene of California. By G. D. Hanna & E. G. Gaylord. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, No. 9, pp. 147-149, 1 fig., March 18, 1924.
8. Smaller Foraminifera for Stratigraphy. <Bull. Am. Assn. Petrol. Geologists, Vol. VIII, No. 2, pp. 246-250, March-April, 1924.

9. A New Species of Whale from the Type Locality of the Monterey Group. By G. Dallas Hanna & Mary E. McLellan. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, No. 14, pp. 237-241, pls. 5-9, June 14, 1924.
10. Insects in the California Tar Traps. <Science (n.s.), Vol. LIX, No. 1538, p. 553, June 20, 1924.
11. Resignation of A. H. Proctor. (Unsigned.) <U. S. Dept. Commerce, Fisheries Service Bulletin, No. 111, August 1, 1924.
- 11a. Annual Report, Department of Invertebrate Paleontology for 1923. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XII, No. 33, pp. 1264-1265, October 10, 1924.
12. Review of "Indications of a Gigantic Amphibian in the Coal Measures of Kansas." By H. T. Martin. <Univ. Kans. Sci. Bull., Vol. XIII, No. 12, pp. 103-114, 3 pls., July, 1922. <Pan-American Geologist, Vol. XLII, No. 5, p. 235, October, 1924.
13. Foraminifera from the Eocene of Cowlitz River, Western Washington. By G. Dallas Hanna & Marcus A. Hanna. <Univ. Wash. Publ. Geol., Vol. I, No. 4, pp. 57-64, pl. XIII, October, 1924.
14. A Little about Diatoms. By G. Dallas Hanna with photographs by W. M. Grant. <The Record (Associated Oil Company Publication), San Francisco, Vol. V, No. 9, pp. 6-8, 10 photographs, September, 1924.
15. The same, reprinted. <California Engineer (University of California), Vol. III, No. 4, pp. 107-108, 8 photographs, December, 1924.
16. Miocene Marine Vertebrates in Kern County, California. <Science (n.s.), Vol. LXI, No. 1568, pp. 71-72, January 16, 1925.
17. The Study of Subsurface Formations in California Oilfield Development. By G. Dallas Hanna & H. L. Driver. <10th Ann. Rept. Calif. St. Min. Bur., Oil & Gas Supervisor, Vol. X, No. 3 (Monthly Chapt. Sept. 1924), pp. 5-26, 10 figs. in text (Issued March 10, 1925).
18. Fauna and Stratigraphic Relations of the Tejon Eocene at the Type Locality in Kern County, California. By Frank M. Anderson & G. Dallas Hanna. <Occ. Pprs. Calif. Acad. Sci., Vol. XI, pp. 1-249, 16 pls., March 18, 1925.
19. Discussion of "Diatom Theory of Origin of Petroleum in California." By Jun-ichi Takahashi, Sendai, Japan. Read May 3, 1924, at Stanford Univ. Calif. before meeting of Cordilleran Section of Geological Society of America. <Bull. Geol. Soc. Am., Vol. XXXVI, No. 1, p. 207, March, 1925.
20. The Academy of Sciences expedition to the Revillagigedo Islands. <Science (n.s.), Vol. LXI, No. 1579, pp. 359-360, April 3, 1925. Published in Oakland Tribune, S. F. Examiner, Chronicle, Bulletin and Call.

21. Naturalists to Explore Strange Islands off Mexico. <San Francisco Examiner, Sunday, April 12, 1925, p. K 7, four photographs.
22. *Lymnæa auricularia* (Linn.) in California. By G. Dallas Hanna & H. Walton Clark. <Nautilus Vol. XXXVIII, No. 4, pp. 125-126, April, 1925.
23. Some Land Shells from the Aleutian Islands, Alaska. <Nautilus Vol. XXXVIII, No. 4, pp. 122-125, April, 1925.
24. Correlation of the Organic Shales of the San Joaquin Valley, California. By E. G. Gaylord & G. D. Hanna. <Bull. Am. Assn. Petrol. Geol., Vol. IX, No. 2, pp. 228-234, pls. 4-5, March-April, 1925.
25. (Annual Report, Department of Paleontology for 1924.) <Proc. Calif. Acad. Sci., Vol. XIII, No. 28, pp. 476-478, May 29, 1925.
26. The Steller Sea Lion Rookery on Año Nuevo Island, California, in 1924. By Barton Warren Evermann & G. Dallas Hanna. <Journ. Mammalogy. Vol. VI, No. 2, pp. 96-99, pls. 8-10, May, 1925.
27. Scientists return with Rarities from Islands off Mexico. <The San Francisco Examiner, Sunday, June 28, 1925.
28. Contribution to the Paleontology of Peru. By G. Dallas Hanna & Merle C. Israelsky. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIV, No. 2, pp. 37-75, pls. 7, 8, July 21, 1925.
29. *Zalophancyclus*, a Fish Vertebra, not a Mollusk. <Nautilus, Vol. XXXIX, No. 1, p. 18, July, 1925.
30. Photograph of Fur Seal Census Taker on Pribilof Islands. <Popular Mechanics Magazine, Vol. XLIV, No. 1, p. 87, July, 1925.
31. The Extraction of Fossils from Refractory Rocks. <Journal of Geol., Vol. XXXIII, No. 5, pp. 555-557, July-August, 1925.
32. The Age and Correlation of the Kreyenhagen Shale in California. <Bull. Amer. Assn. Petrol Geolog., Vol. IX, No. 6, pp. 990-999, September, 1925. Read before September, 1924, Meeting of Pacific Section of Amer. Assn. Pet. Geol. at Los Angeles.
33. Additional records for *Lymnæa auricularia*. By G. Dallas Hanna & H. Walton Clark. <Nautilus, Vol. XXXIX, No. 2, p. 71, October, 1925.
34. Was there a Pacific Continent? <Science (n.s.), Vol. LXII, No. 1613, pp. 491-492, November 27, 1925.

Hertlein, Leo G.

1. Pectens from the Tertiary of Lower California. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIV, No. 1, pp. 1-35, July 21, 1925.
2. New Species of Marine Fossil Mollusca from Western North America. <Bulletin Southern Calif. Acad. Sci., Vol. 24, Pt. 2, pp. 39-46, 1925.

3. A Summary of the Nomenclature and Stratigraphy of the Marine Tertiary of Oregon and Washington (with Colin H. Crickmay). <Proc. Amer. Phil. Soc., Vol. LXIV, No. 2, pp. 224-282, 1925.

Jordan, Eric Knight

1. Notes on the Fishes of Hawaii with descriptions of six new species. <Proc. U. S. Nat. Mus., Vol. LXVI, 1925, Art. 33, pp. 1-43, pls. 1-2.

Mailliard, Joseph

1. Census of Birds' Nests in the Music Concourse, Golden Gate Park, San Francisco, California, for 1924. <The Gull, Vol. VII, No. 2, February, 1925.
2. Some New Rodent Records for Northeastern California. <Journal of Mammalogy, Vol. VI, No. 1, pp. 57-58, February 9, 1925.
3. Notes upon the Numerical Status of Rodent Populations in Parts of California. <Journal of Mammalogy, Vol. VI, No. 2, pp. 102-105, May 12, 1925.
4. Annual Report of the Department of Exhibits for 1924. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, Nos. 27-28, pp. 472-473, May 29, 1925.
5. Annual Report, Department of Mammalogy for 1924. <Proc. Calif. Acad. Sci., 4th Ser., Vol. XIII, Nos. 27-28, p. 475, May 29, 1925.
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DEPARTMENT REPORTS

DEPARTMENT OF BOTANY

A total of 138,432 sheets of mounted herbarium specimens are now numbered and stamped. Of the 299 families of plants, according to the latest system of classification, all but 15 are represented in the herbarium. Ten of these consist of a single genus and have been removed from larger and well known families; the remaining five belong in the tropics and have few genera.

Several important collections by exchange and purchase which have added many rare species and genera to the herbarium have been acquired; 428 in exchange, chiefly North American from the National Herbarium, Washington, D. C.; 622 of the J. F. Duthie collection from the Himalaya Mountains, and 285 of the A. Stolz collection from Lake Nyassa, Africa, by exchange from the Royal Herbarium, Kew, England; 375 Chilian plants purchased from the collector, Dr. E. Werderman, an authority on Chilian plants; 185 Chinese plants, a continuation of the McClure Hainan Island collection, purchased from Canton Christian College, China; and 627 from Hood River region, Oregon, purchased from the collector, L. F. Henderson of the University of Oregon.

The curator made several short trips to various parts of northern California in the spring and collected as follows: 64 species on a one-day trip over Mount Hamilton from San Jose to Livermore; 11 species from an early trip to Ione, Amador County; 148 species from a short trip to Madera and Raymond, Madera County; 149 species from Potter Valley, Mendocino County; and 214 from the foot of Mount Sanhedrin, Lake County. On a trip to Portland, Oregon, to attend the meeting of the Pacific Division of the American Association for the Advancement of Science, collections were made in Oregon, Washington and Idaho. At Portland, 11 species were collected, 25 on the Columbia Highway, 48 at Wind River Forestry Station, 291 at Pullman and vicinity, and 63 at mouth of the Salmon River.

Besides a number of contributors whose names will appear in the general list and whose contributions consisted of one or two specimens sent usually for identification, the following made valuable contributions to

the herbarium: W. J. Classen, Cold Bay, Alaska, 27; George Haley, from Unalaska, Unimak and St. Paul Island, Alaska, 135; William Vortiede, 83, Eldorado County; Mrs. G. Earle Kelley, 29, from Round Valley, Mendocino County; A. F. Graff, 17, Cazadero, Sonoma County; W. P. Steinbeck, 15, Calaveras County; Mrs. Joseph Clemens, 23, from Texas; Cecil Hart, 23 desert plants, Southern California; Mrs. E. C. Sutcliffe, 20, Marin County; Mrs. J. C. Augsbury, 17, Yosemite region; Mary E. Webb, 26, Santa Barbara; Mrs. E. C. Wright, 71, Mono Lake region; Mrs. Ilsiën Nathalie Gaylord, 26 mosses from the eastern United States; F. V. Coville, 17 specimens of *Ribes* from California; Eric Walther, 115 specimens of cultivated plants.

The collections from the islands off the coast of Mexico made on the California Academy expedition in the spring have not yet been named or listed, but will undoubtedly add many new species to the collection as well as duplicates for exchange.

In continuation of exchange, duplicates from our herbarium have been sent to the following institutions: Arnold Arboretum, Jamaica Plain, Mass., 210; Gray Herbarium, Cambridge, Mass., 47 Lower California; Royal Herbarium, Kew, England, 133 Galapagos duplicates and 155 miscellaneous specimens; 247 miscellaneous specimens to Pomona College, Claremont, California.

Besides the regular herbarium work which takes a great deal of time in a rapidly growing herbarium, much time has been given to the identification of exotics, as the Academy is now regarded as the California authority, our collection of the exotics cultivated in California being the most complete.

Popular addresses have been given on botanical subjects, conservation of the wild flowers, and the history and botanical features of Golden Gate Park, to schools, Parent-Teachers Associations, floral societies, federation of women's clubs and individual clubs, Alpine, Sierra, and Tamalpais Conservation Club, and Girl Scouts. Two lectures have been given for the Academy and one at the Portland meeting.

The Botanical Club holds weekly meetings or excursions and has now about 75 members. A class of Park gardeners meets in the herbarium two evenings a month. This is to enable the ambitious men to learn the names and relationships of the species in the park. The exhibition of cultivated and native flowers in bloom out of doors is one of the popular features of the museum and is consulted by many people throughout the year. Hundreds of species are exhibited during the year, each labelled with scientific and common name and native home. Mrs. Johanna Wilkens keeps it clean and in order, and, without her careful attention, it would not be possible to have it always looking nice. My assistant, Mrs. George H. Phelps, does all the mounting of the rapidly increasing collection, besides many other duties such as putting the additions into their proper places in the herbarium, looking after the specimens being dried, writing labels of duplicates, besides other duties that do not require botanical knowledge.

Alice Eastwood, *Curator.*

April 28, 1926

DEPARTMENT OF ENTOMOLOGY

Nineteen twenty-five was another year of active advance in the Department of Entomology. Two large collections were added to the Academy resources; specimens received from other sources number more than the average; the mounting and labelling of accumulated material made available for study much which before had potential value only, and the addition of new cases permitted the rearranging of the collections to be advanced rapidly.

Additions to the department collection during 1925, received through the ordinary activities of the department, numbered 27,301 specimens. In addition, two large collections were formally presented to the Academy which merit special mention. On August 22, Dr. F. E. Blaisdell presented to the Academy his entire collection of Coleoptera, numbering at least 100,000 specimens. These were given under the same conditions as was the Van Dyke collection presented last year, conditions that allow the donor the free use and control of the material during his life time, assures its permanent preservation, and, with the Van Dyke collection, places in the possession of the Academy a remarkably complete series of the beetles of North America, which, in the case of the western species, are represented by exceptionally large and valuable series showing geographical and ecological variation. The other collection mentioned is the curator's private collection of Hemiptera numbering perhaps 30,000 specimens. This collection, accumulated through more than 30 years of systematic work on that order of insects, represents a very large proportion of the species known from America north of Mexico up to 10 years ago, and, added to the extensive collection of western Hemiptera already in the Academy collection, forms a representation in that order of insects perhaps unsurpassed so far as our North American fauna is concerned.

Of the ordinary accessions of the year the largest item is the material taken by the curator's assistant, Mr. H. H. Keifer, on the Academy's expedition to the Revillagigedo Islands, numbering 10,753 specimens. The work of determining this material has only just begun, but undoubtedly many new and rare species will be found in it. Other notable additions during the year were: from Mr. A. J. Bassenger, 2210 specimens including a large and interesting series of Diptera from Alaska; from Mr. C. L. Fox, 3,114 specimens consisting of Diptera and Coleoptera from eastern Washington and western Idaho and a valuable series of Hymenoptera from Arizona; from Dr. E. C. Van Dyke, 1954 insects of orders other than Coleoptera from Oregon and eastern Washington and other localities; from Mr. J. C. Huguenin, 1870 miscellaneous insects; from Mr. Walter M. Giffard, 320 leaf-cutting bees from about Lake Tahoe, California; from Mr. E. A. Dodge, a collection of 478 tiger beetles made many years ago by his brother, Mr. G. M. Dodge, and including many rare species, also from Mr. Dodge a collection of 211 moths from Exeter,

California, secured by his son, the late Ralph M. Dodge; from John E. Carey, 905 Lepidoptera from Panama including many rare and beautiful forms. Other valuable donations to the department collection were made by Mr. Louis Slevin, Mr. E. R. Leach, Mr. J. O. Martin, Mr. Geo. Haley, Dr. J. A. Comstock, Mr. David M. McKell, Mr. B. H. Murray, Mr. Eric Walther, Mr. Joseph Mailliard, Mrs. H. J. Smith, Mr. Frank Mason, Mr. J. G. Grundell, and others. In addition to these donations 3800 insects were secured by the curator and his assistant in field work in the Bay region.

On January first, Mr. Hartford H. Keifer was added to the department staff as full-time assistant, and, through his continued and faithful efforts, much has been done toward mounting and labelling accumulated material. Mr. J. O. Martin completed the installation of the Holbrook collection of butterflies, which now is well displayed on specially constructed multiplex frames in the bird hall. Following the completion of the Holbrook collection, he has been working part time on the incorporation of the Van Dyke collection into that of the Academy in the new unit boxes recently adopted in this department. Over 26,000 specimens from the Van Dyke collection have been so arranged and the work is being pushed as rapidly as possible. The balance of the material taken on the Arizona expedition of 1924 has been mounted and, with the Holbrook collection, brings the total additions to this department for 1924 up to 30,700 specimens.

The Academy is under renewed obligations to Messrs. Barnes and Benjamin for the determination of moths in its collection. Through this assistance most of the moths, exclusive of the micros, are now determined and the arranging of the collection will be pushed as rapidly as boxes become available. Prof. P. A. Claassen of Cornell University has determined the stone-flies in the collection and these are now available for study. Dr. E. C. Van Dyke has devoted much time and effort during the year to checking over the Academy collection of beetles as fast as they are arranged in the unit boxes. So far, the families Cerambycidae, Buprestidae, Scarabidae, Cicindelidae and the Cychriini have been gone over by him and are now available for the use of students of these interesting insects.

The Pan-Pacific Entomologist, initiated in 1924, has reached the middle of the second volume. This effort to give the West a place in the entomological literature of the country is meeting with much encouragement. While it is not yet self-sustaining, that goal does not seem as distant as it did, and with moderate assistance for a few years it should attain independence and show growth both in size and quality.

The growth of the Department of Entomology during recent years has been most encouraging and, with continued support, the Academy of Sciences will have a collection of insects that will rank among the largest and most valuable in the country.

EDWARD P. VAN DUZEE, *Curator.*

DEPARTMENT OF EXHIBITS

So much of the time of the personnel of this department has been diverted to other matters that there is less to report as accomplished in the field of exhibits than has been the case in previous years; but, in spite of interruptions, Mr. Frank Tose, chief taxidermist and group artist of the Museum, has arranged and installed four more panel groups in the Bird and Mammal halls, all of which have attracted much favorable comment. The four groups are: California Woodpecker, Lazuli Bunting, Point Reyes Mountain Beaver, and Warner Mountain Cony. The California Woodpecker Group is especially interesting in that it shows the combination of a nesting hole and a tree that is thickly inset with acorns, well exemplifying the characteristic storage habit of this bird. The Mountain Beaver and the Cony groups exhibit two species of small mammals so rarely seen by the public that the majority of people do not even know of their existence.

The rearranging of the Grizzly Bear Group, which was commenced late in the fall of 1924, extended well into January, 1925. In the early spring a number of birds were collected and mounted in preparation for that time when the proposed seasonal groups of the birds of Golden Gate Park become realities. In between times some fine work was done on wax reproductions of beautiful Colorado Desert cacti, to be installed in the present desert group to make it even more attractive.

A matter that occupied several weeks of departmental time was the construction and the placing in position for future use of cases for panel groups in all available spaces in order to save the time and labor involved by the old method of setting in position cases for each group as needed. The backs of these newly installed cases and the backs of all those already arranged with groups have been so treated as to make them harmonize with the backgrounds and accessories of the large habitat groups into which they project. The camouflaging of these projecting backs has greatly improved the appearance of the large groups and added to their charm.

Mr. Tose was detailed, with Mr. J. T. Wright as assistant, to represent the departments of Ornithology and Mammalogy on the expedition that started about the middle of April to the Revillagigedo and Tres Marias islands and returned toward the end of June. The preparation of equipment before starting and the finishing up of the temporarily prepared and cold storage specimens obtained on this expedition, with the voyage itself, occupied these members of the department from the first of April until well into July.

Later in the year, practically a month was occupied by Mr. Tose in making from a cast a life-sized model of a great Leatherback Turtle for the Department of Herpetology.

While the demand for portable school groups does not seem to have lessened, there has been no time available, with the present force, for the construction of new ones, and the only work carried on in this line has been the reconstruction of some that had been damaged by accidents. The portable school groups now in use consist of one each of the following: Sandpipers and marsh birds, California Woodpecker, Gila Woodpecker, Barn Owl, Western Meadowlark, California Shrike, San Francisco Towhee, Western Robin, Sierra Golden-mantled Ground Squirrel, California Ground Squirrel, Sierra Chickaree, Redwood Weasel, and Spiny Pocket Mouse.

Student assistants in this department have been as follows: James F. Campbell, for the greater part of the year; Miss A. M. Hill, short course in accessory work; J. T. Wright, first half of year; Russel Hendricks and Cecil Tose, part time; and several school boys at various periods.

JOSEPH MAILLIARD, *Curator*.

DEPARTMENT OF FISHES

This Department was established August 29, 1925, at which time Mr. H. Walton Clark was made assistant curator. Mr. Clark had been a scientific assistant in the United States Bureau of Fisheries for many years, during which he was chiefly engaged in biological investigations relating to fishes and the fisheries and in studies of the geographic distribution of fishes. When the Steinhart Aquarium was established in 1923 Mr. Clark was made chief collector, which position he held until transferred to his present position.

The establishment of a department of fishes seemed necessary in order that proper attention might be given to systematic and life-history studies of the fishes of California and elsewhere in connection with the Aquarium and the Museum. Considerable collections of fishes have already been acquired, the principal regions represented being California, the Hawaiian Islands, China, and the Revillagigedo and Tres Marias islands off the Pacific coast of Mexico. These will all be studied, carefully identified and put in order as rapidly as possible.

It is the intention to install in the Aquarium laboratories a carefully identified reference series of specimens in alcohol of all the species of fishes of California, both fresh and salt water, and, as time and opportunity permit, similar series of the species found in the other Pacific coast states. Teachers, anglers and others often come to the Aquarium or the Museum and make inquiry about some fish they have seen but which they do not find in the Aquarium. It is hoped that when our reference series has been established, we shall be able to show to such inquirers a specimen of any species of fish about which they ask.

During the year Mr. Clark has devoted most of his time assisting Dr. Jordan and the Curator with the preparation of a revised check-list of

the fishes of North and Middle America, upon which they have been engaged for several years. He and the Curator also have in preparation a distributional check-list of the freshwater fishes of California which they hope to complete in the near future. They are also engaged in preparing a report on the fishes of the *Ortolan* expedition of 1925 to the Revillagigedo, Tres Marias, and other islands off the Pacific Coast of Mexico.

BARTON WARREN EVERMANN, *Curator*.

DEPARTMENT OF HERPETOLOGY

At the beginning of the year 1925 the Academy's collection of reptiles and amphibians numbered 56,033 specimens. There have been added during the year 3,253 specimens, so that the collection has grown to 59,286 specimens.

Gifts of specimens during the year have been received as follows: From Steinhart Aquarium, 3 specimens; J. Labarthe, 1; Prof. W. B. Herms, 37; Fred. Howarth, 11; Dr. E. C. Van Dyke, 15; H. W. Clark, 1; E. W. Williman, 3; Melbourne Ward, 5; L. M. Klauber, 145; and Miss M. E. McLellan, 8.

Specimens have been secured from 5 counties of California as follows: Imperial, 4; Plumas, 6; San Diego, 136; San Francisco, 1; and San Mateo, 3.

Specimens from other localities are: Nevada, 1; New York, 11; Oregon, 1; Virginia, 3; Washington, 11; Eastern Asia, 14; Africa, 14; Australia, 5; Fanning Island, 37; Mexico, 2997; Ecuador, 1; Peru, 6; and Costa Rica, 2.

Work has been begun, and considerable progress made, on an account of the amphibians of the western portion of our continent, to complete the review of the herpetology begun by the late Dr. Van Denburgh.

Mr. Frank Tose, of the Department of Exhibits, has completed the casting of the large leather-back turtle presented to the Academy by the San Francisco International Fish Company.

The classification, labeling, cataloging, and arrangement of the collection was continued during the year.

Field work was carried on in Mexico. The expedition to the Revillagigedo Islands resulted in a collection of 1,550 specimens, and the continuation of the field work in the states of Oaxaca, Vera Cruz, Tehautepec, and the Federal District of Mexico in 1,438 specimens.

The thanks of the department are due Profs. Herrera, Solis, and Contreras, of Mexico City, and Mr. Paul Ruthling, of Cosolapa, for the many courtesies extended.

JOSEPH R. SLEVIN, *Assistant Curator*.

LIBRARY

During the year 1925 the library of the Academy maintained a steady and satisfactory growth in all departments of its work. The accessions numbered 967 complete volumes, of which 336 were added by purchase, 239 by gift, and 492 by the completion of volumes through material received in exchange. In addition to these the usual number of serial publications were received by exchange. Most of these exchanges were publications of scientific societies and will be included in completed volumes later. A number of valuable donations to the library were received during the year, but none of exceptional extent, although among them were a few that made most welcome additions to the library resources of the Academy.

Miss Margaret Dold severed her connection with the library on May 25, and for some time the library was without an attendant. On September first Mr. C. A. Bellas entered upon the duties of assistant in the library and, by faithful work, has gotten the the accumulated material assorted and properly shelved. He has also entered on the accessions register all complete volumes received and has classified and catalogued certain books requiring such attention. He has also done much toward bringing up to date certain of the foreign exchanges that had gotten behind during the war conditions.

Another item of much interest in the library work was the binding of 1183 volumes. For a number of years no binding had been done, so there was a large accumulation of unbound material. Such unbound volumes are awkward to handle and are subject to rapid deterioration in use, so the binding of so many volumes was an improvement in the library service that has been very much appreciated by the library staff. A minor convenience to all users of the library was the construction of a small case near a window for shelving the Zoological Record, so those most indispensable helps can now be referred to without the inconvenience of stack use.

On the whole, the library has made a most satisfactory growth in its resources and in its use both by the staff and by outside members, and the outlook for the coming year is most encouraging.

EDWARD P. VAN DUZEE, *Assistant Librarian.*

DEPARTMENT OF MAMMALOGY

As has been customary for the past few years, work in this department has been carried on in connection with that of the Department of Ornithology, and there has been but little attempted that was particularly distinctive.

Limited collections of the smaller mammals have been made by the Curator and his assistants in Modoc, Siskiyou, and Placer counties, California, and in the extreme southern part of Josephine County, Oregon;

by Mr. Frank Tose, of the Department of Exhibits, and his assistant, Mr. J. T. Wright, at various points visited by the Revillagigedo and Tres Marias Expedition; and by Miss M. E. McLellan, Assistant Curator of the Department of Ornithology, in the provinces of Sinaloa and Nayarit, Mexico.

Through the courtesy of the California Sea Products Company, Dr. E. T. Engle, who had placed his services for a limited period at the disposal of the Academy, obtained at the Trinidad Whaling Station, Humboldt County, California, some valuable osteological specimens of Cetacea and some interesting data, for this department.

The principal features of the indoor work of the department in the past year have been the construction of a new hide room and the installation in it of the collection of hides of marine mammals; the transfer of the skins of the smaller mammals from the large hide room to the standard metal cases in the mammal room, wherein several new cases have been placed; the tanning of what hides were still awaiting treatment and the rearrangement of the osteological collection.

Accessions to this department have been as follows: *By exploration*: 127 specimens. *By gift*: C. W. Bowman, 3; California State Bureau of Animal Industry, 1; Mrs. F. Ellsworth, 1; Russel Hendricks, 1; E. R. Leach, 1; A. K. Macomber, 1; John McLaren, 3; W. M. Phillips, 1; Steinhart Aquarium, 1; Mrs. Peter Swartz, 1; E. P. Van Duzee, 2; J. T. Wright, 4. *By purchase*: 2 specimens.

JOSEPH MAILLIARD, *Curator*.

DEPARTMENT OF ORNITHOLOGY

Early in the year the Mailliard oölogical and ornithological collections (with the exception of a small portion temporarily reserved, consisting of a minimum representation of all species of birds and eggs included in it) were transferred from the residence of Mr. John W. Mailliard to the Museum of the California Academy of Sciences and installed there, for the time being as separate units.

This addition to the collections, together with the John Van Denburgh collection of eggs (received in 1924, through Mr. Douglas Van Denburgh), which has been properly boxed and made ready for incorporation in the collections, and the increase in the number of specimens through field work, necessitating the installation of eleven new cases, has resulted in the filling of all the space available in the three rooms allotted to the department. Within a short time, provision will have to be made whereby the department may have additional room to house the rapidly growing collections.

The addition of the new cases made necessary a rearrangement of the whole collection. This work has been carried on by Assistant Curator M. E. McLellan, as time could be spared from other duties, but it is not yet completed.

In the absence of a regular librarian, Miss McLellan, being familiar with the work, devoted time for the space of three months to library affairs needing immediate attention, which, in consequence, curtailed the amount of work that could be accomplished in this department.

Expeditions and field work occupied a considerable portion of the year. In cooperation with the other departments of the Museum, this department participated in the Academy's expedition to the Revillagigedo and Tres Marias islands off the Mexican coast, as mentioned in the annual report of the President of the Academy. On this occasion the departments of Ornithology and Mammalogy were represented by Mr. Frank Tose, chief taxidermist of the Museum, and Mr. J. T. Wright, student and part-time assistant in the Department of Exhibits. A good collection of birds was made and some especially interesting material was obtained on this expedition.

In Siskiyou County, California, the valley of the Klamath River, from the vicinity of Hornbrook to Happy Camp and Indian Creek, some 50 miles west of Hornbrook, together with parts of Josephine County, Oregon, adjacent to the California line, was the scene of field activities from May 9 to June 13, the field party consisting of the curator, James F. Campbell, student assistant, and Raleigh Borell, general assistant. Field work was also carried on by the Curator and Raleigh Borell in Placer County, California, from June 28 to July 10.

With John Denver as general assistant, the Curator carried on field work at Eagleville, Modoc County, California, from September 8 to October 15, for the purpose of comparing the bird life found there in a normal autumn season like that of 1925 with that found in the previous year, which was the third and worst year of a prolonged drouth. One of the principal features of the work in 1925 at Eagleville was the trapping and banding of nearly 400 Gambel's Sparrows on their southward migration. This was done in the hope that some of the birds might fall into the hands of other bird banders or of people along the line of flight who might be sufficiently interested to send the band, if taken from a dead bird, or to report the band number, if found on a captured bird, to the U. S. Biological Survey, Washington, D. C., and thus add to our rather limited knowledge of the migratory movements of birds.

The last two weeks of December were occupied by the Curator, with Raleigh Borell as assistant, in investigating the winter bird life in parts of Placer County, California, and in doing some further work in bird banding.

On September 5, Miss McLellan started upon a trip to the states of Sinaloa and Nayarit, Mexico, for the purpose of securing specimens of birds from the mainland for comparison with those obtained on the Tres Marias by the departmental representatives in the spring. Work was begun about the middle of September and carried on for a period of six weeks at Labrados (near Mazatlan), San Blas, and Maria Madre Island.

The results of this trip were very satisfactory, not only because of the number of specimens secured, but also on account of the comparatively large number of species represented among them, and the obtaining on Maria Madre of representatives of several species not previously recorded from the Tres Marias.

During the year the library of this department has obtained certain valuable works, notably, Gray's *Genera of Birds*, *Stray Feathers*, Latham's *General Synopsis of Birds*, and Rowley's *Ornithological Miscellany*, and provision has been made for still further additions.

In the latter part of the year the purchase of a suitable automobile for the joint use of the departments of Ornithology and Paleontology was decided upon, as these departments can so coördinate their field work as not to interfere seriously with each other in regard to the date and period of use.

Accessions to the department have been as follows: Bird skins—*By exploration*: 1373 specimens. *By gift*: E. W. Gifford, 1; E. C. Johnson, 1; G. L. Merguire, 1; Nick Mouzin (for Charles White), 1; J. W. Steinbeck, 3; J. T. Wright, 94. *By purchase*: 6 specimens.

Birds' nests and eggs have been received as follows: *By exploration*: 59 sets (78 eggs). *By gift*: E. W. Gifford, 1 egg; Mrs. Lloyd H. Robbins, 1 nest.

JOSEPH MAILLIARD, *Curator*.

DEPARTMENT OF PALEONTOLOGY

During 1925 several considerable and noteworthy collections came to the Department of Paleontology. Dr. Roy E. Dickerson, formerly Curator, presented a large collection of invertebrate fossils from the Philippine Islands, Java and Japan.

After several months of exploration in the bone beds of Shark-Tooth Hill, Kern County, California, under the direction of Charles Morrice, work there was suspended early in the year. The material collected was transmitted to Dr. Remington Kellogg, U. S. Biological Survey, Washington, D. C., for study and report, and, although a great many valuable additions to vertebrate paleontology have been made at that locality, it seems probable that a better site for a quarry may be found in the vicinity. In the excavations thus far explored the bones of the animals are scattered and broken although they are present in almost unbelievable abundance.

In April, the Curator and Assistant Curator left San Francisco on the U. S. S. *Ortolan*, as members of the Revillagigedo Islands Expedition. Almost two months were spent in the field. Collections were made of fishes, marine invertebrates, fossils, rocks, and living marine and land mollusks. Formal reports will be prepared on these various groups and they will give a better indication of the character of the collections than a preliminary announcement. However, it should be explained at this

point that the giving of figures to represent numbers of specimens in this department is impracticable. For instance, a single cubic inch of some of the samples of organic shales collected can be shown to contain more than a hundred million individual skeletons of organisms.

One other accession worthy of note is the large collection of samples of sedimentary rocks and shales obtained in drilling oil wells by the Pacific and Associated Oil Companies. It is impossible to estimate the scientific value of this collection and it is the only one of its kind of any consequence in existence in any museum. It would cost many millions of dollars in drilling expense to duplicate the collection. On account of lack of storage space in the laboratory and the large size of this collection, it has been necessary to house it in the basement of the Museum building, but there it has been systematically arranged so that any part is readily accessible.

The bulk of the detailed work of the Department during this year has fallen upon Mr. Eric Knight Jordan, Assistant Curator, and Mr. Leo G. Hertlein, Temporary Assistant. Their duties have been faithfully and efficiently performed, and this is reflected in the fact that the collections of the Department have probably never before been so well kept or so orderly arranged.

Various institutions and individuals have made use of the collections of the Department and at the end of the year the outstanding loans were as follows: Dr. Paul Bartsch, U. S. National Museum, Washington, D. C.; Miss Mary J. Rathbun, U. S. National Museum, Washington, D. C.; Dr. W. P. Woodring (Feb. 12, 1926), U. S. Geological Survey, Washington, D. C.; Dr. Wm. H. Dall, U. S. National Museum, Washington, D. C.; Dr. Fred Baker, Point Loma, California.

G. DALLAS HANNA, *Curator.*

STEINHART AQUARIUM

It is a pleasure to report the Aquarium in good condition and the most popular public institution in San Francisco. The attendance for the year was 1,043,591. Our attendance on Sundays and holidays is still too large for seeing the fishes to the best advantage and is a constantly repeated argument for additional room that a new wing would provide.

The total number of live specimens in the Aquarium tanks on Dec. 31, 1925, was 7,120, an increase of 912 during the year. These are divided among the branches of the animal kingdom as follows:

Mammals	.....	8 specimens	.....	4 species
Birds	.....	1 specimen	.....	1 species
Reptiles	.....	75 specimens	.....	22 species
Batrachians	.....	13 specimens	.....	7 species
Fishes	.....	6596 specimens	.....	201 species
Invertebrates	.....	427 specimens	.....	6 species

Total.....7120 specimens240 species

The above is exclusive of the Hatchery in which 8,000 eggs of Trout and Salmon were hatched during the year.

It would seem a far cry from the slimy Hagfish in tank No. 9 to the study of Pyorrhoea. However, one of the activities of the Aquarium during the past year was to supply quantities of mucous from these fish to Dr. R. N. Loomis of the University of California Dental College in order that the effects of mucous on dentin might be carefully studied and its relation to disease, if any, established.

One would not really suspect the Aquarium to have any connection whatever with the 18th amendment, yet a special investigator, Dr. McCay of the California State Fish and Game Commission, spent a month in our Laboratory investigating the pollution of the San Francisco Bay water by a large distillery and the effect of the same on our commercial fishes.

Dr. Shaw, of Shanghai, China, and Dr. Deograxis Villadolid, from the Philippine Islands, have spent considerable time on the study of our collections.

The State Board of Health of Sacramento keeps one of our large tanks well stocked with mosquito fish (*Gambusia affinis*), and has requested us to distribute these fishes free of charge to anyone desiring small fish for stocking ponds, garden pools and aquariums. Several hundred of these have been so distributed and will no doubt assist in the abatement of the mosquito pest in this state. On Nov. 2, 1925, a shipment of these fish was sent to Tahiti, Society Islands, to help to eliminate the mosquitos.

The gifts of live animals to the Aquarium during the year number 726. Eight of these were alligators.

Our loss of specimens during the year has not been excessive. We have had no bad epidemics; as a matter of fact, we have been assured on very good authority, our loss has been considerably less than at other large aquariums.

We have been fortunate in securing the services of Mr. Robert J. Lanier, formerly of the New York Aquarium, whose long experience in that aquarium will be of benefit to us.

Mr. H. Walton Clark was transferred from the Aquarium staff on Sept. 14 to the position of Assistant Curator of fishes in the California Academy of Sciences.

On March 20, our collector, W. J. Martin, resigned and his place was taken by Mr. Herbert Brandt.

With the exceptions noted above and a few minor changes, the staff of the Aquarium remains the same.

It is the desire of the Superintendent that the Aquarium may continue to improve during the coming year. As a means to that end we respectfully suggest that a small greenhouse for growing of tropical plants and fishes be constructed on the roof of the Aquarium, and the matter of securing more warm water tanks seriously be considered. Also that arrangements be made to secure a large number of the beautifully colored fishes found along the shores of Mexico and Central America.

During the year, 728 gifts of living animals, chiefly fishes and reptiles, were made to the Aquarium. To the many donors our grateful appreciation is hereby expressed.

During the same period the Academy, on behalf of the Aquarium, supplied a total of 1858 specimens of live fishes and other small aquatic animals to schools and individuals for use in small balanced aquariums in schools and homes. In this way and through definite instruction we are doing much to encourage the establishment and maintenance of these really educative adjuncts to schools and homes.

The number of schools visiting the Aquarium continues to grow, as shown by the following summary:

SCHOOLS VISITING THE AQUARIUM

Schools of San Francisco

Total Number Visiting Pupils.....	8090	8090
Total Number Visiting Teachers.....	285	
Total Number Visiting Classes.....	299	
	—	

Schools Outside of San Francisco

Total Number of Pupils.....	1776	1776
Total Number of Teachers.....	65	
Total Number of Classes.....	83	
	—	—

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ALVIN SEALE, *Superintendent.*

ACCESSIONS TO MUSEUM AND LIBRARY FOR 1925

- Alaska Packers Association, San Francisco: 10 specimens of *Cardium corbis* from Alaska. Gift.
- Aldous, Harry, 228 West First North Street, Salt Lake City, Utah: 19 sets of bird eggs (80 eggs). Exchange.
- Anderson, Mrs. W. F., Indio, Calif.: 3 botanical specimens from Indio, Calif. Gift.
- Andrews, C. L., Point Barrows, Alaska: 2 mammal skins and 6 bird skins from Alaska. Purchase.
- Associated Oil Co., 79 New Montgomery Street, San Francisco: 4 specimens of cretaceous mollusks from Oregon and British Columbia, 50 samples of fossiliferous cretaceous shales from Moreno Gulch, Fresno Co., Calif., a slab of freshwater Ostracod Shale from Brazil, and 15 specimens of Pliocene fossils from near Casimalia, California. Gift.
- Augsbury, Mrs. J. C., 1300 Balboa Street, San Francisco, Calif.: 17 botanical specimens from Yosemite, Calif. Gift.

- Bailey, H. H., Miami, Florida: 1 pair Florida Screech Owl, 2 pairs Florida Bob White, 2 pairs Cardinal, 4 pairs Bahama Redwing, 2 male Least Tern, 1 female Dusky Seaside Sparrow, 2 male Loggerhead Shrike, and 1 male Southern Meadowlark. Exchange.
- Baker, Dr. Fred, Point Loma, Calif.: 36 species of mollusks new to Academy collection. Exchange.
- Baker, Dr. Fred, Point Loma, Calif.: 9 lots of freshwater mollusks. Gift.
- Baldwin, Mrs. Elizabeth R., San Luis Obispo, Calif.: 2 specimens of plants from San Luis Obispo, Calif. Gift.
- Bassenger, A. J., Citrus Experiment Station, Riverside, Calif.: 2210 insects, largely from Alaska and including a fine series of Alaskan Diptera. Gift.
- Blaisdell, Dr. F. E., 1520 Lake Street, San Francisco, Calif.: 50 insects, mostly Cicadas, from Yreka, Calif. Gift.
- Blaisdell, Dr. Frank E., Sr., 1520 Lake Street, San Francisco, Calif.: The Blaisdell Collection of Coleoptera, of about 100,000 specimens. Gift.
- Bottom, Charles, 1316 W Street, Sacramento, Calif.: 44 mounted birds from California. Gift.
- Bowman, C. W., 2032 Judah Street, San Francisco: 1 boar's tusk from the Philippines, 2 boars' tusks from Lake County, Calif. Gift.
- British Museum, London, England: 14 specimens of reptiles and amphibians from Eastern Asia. Exchange.
- Bureau of Animal Industry, San Francisco, Calif.: 1 *Antelope cervicapra*, in flesh, from Australia. Gift.
- Canton Christian College, Canton, China: 125 specimens of the McClure collection of Hainan plants. Purchase.
- Carey, John E., Manila, P. I.: 905 specimens of Lepidoptera from Panama. Gift.
- Charles, Juanita E., Cazadero, Calif.: 1 botanical specimen from Cazadero, Calif. Gift.
- Christensen, Mrs. C. P., 1260 9th Avenue, San Francisco: 1 lot of miscellaneous minerals. Gift.
- Classen, W. J., Menlo Park, Calif.: 27 botanical specimens from Alaska. Gift.
- Clark, Mrs. Curran (Cora Taylor Clark), 1502 Willard Street, San Francisco: 1 oil painting of John Taylor, former Trustee of the California Academy of Sciences. Gift.
- Clark, H. Walton, San Francisco, Calif.: 1 lizard from San Francisco, Calif., and 1 botanical specimen from California. Gift.
- Clemens, Mrs. Joseph, 638 Isaac Peral, Manila, P. I.: 23 specimens of plants from Texas. Gift.

- Coale, H. K., 528 S. Linden Avenue, Highland Park, Ill.: 1 female White-wing Junco, 1 male Fish Crow, 1 pair Florida Redwing, 1 female Vera Cruz Redwing, 1 pair Southern Downy Woodpecker, 1 pair Southern Meadow Lark, 1 pair American Goldfinch, 1 female Rock Sparrow, 1 female Dakota Song Sparrow, 1 male Warbling Vireo, 1 male White-eyed Vireo, 1 male Swainson's Warbler, 1 female Texas Wren, 1 male Prairie Marsh Wren, 1 pair House Wren, 1 pair Willow Thrush. Exchange.
- Comstock, Dr. John A., Southwest Museum, Los Angeles, Calif.: 66 Butterflies, new to the Academy Collection. Gift.
- Contreras, Prof. Francisco, Museo Nacional de Historia Natural, Mexico, D. F.: 20 miscellaneous pamphlets. Gift.
- Coville, Dr. F. V., National Herbarium, Washington, D. C.: 17 specimens of Ribes from California. Gift.
- Dickerson, Dr. Roy E., Standard Oil Co., San Francisco: A large collection of fossils from the Philippine Islands. Gift.
- Dodge, E. A., 546 Bay Street, Santa Cruz, Calif.: 201 miscellaneous insects, largely moths, taken by Ralph Dodge at Exeter, Calif. Gift. 478 tiger-beetles forming the G. M. Dodge Collection of Cicindelidæ. Gift.
- Doods, Clifford, R. D. No. 2, Ojai Road, Santa Paula, Calif.: 169 insects from various localities. Gift.
- Ducruet, Theo. I., 2964 Pine Street, San Francisco: 3 mussel shells from Visitacion Valley, San Francisco Bay. Gift.
- Durbrow, Mrs. Pierson, 62 5th Avenue, San Francisco, Calif.; 1 botanical specimen from California. Gift.
- Eastwood, Miss Alice, California Academy of Sciences, San Francisco: 30 specimens of land mollusks from Bakers Point, Idaho. Gift.
- Eastwood, Miss Alice, California Academy of Sciences, San Francisco: 223 California plants; 834 botanical specimens as follows: 33 from Marin County, Calif.; 214 from Lake County, Calif.; 149 Mendocino County, Calif.; 11 from Portland, Oregon; 25 from Columbia Highway, Oregon; 48 from Wind River Forest Station, Washington; 242 from Pullman, Washington; 49 Moscow and Lewiston, Idaho; 63 from mouth of Salmon River; 6 botanical specimens from Marin County, Calif. Exploration.
- Ellsworth, Mrs. F., 917 Sierra Street, Turlock, Calif.: 1 *Mycteris cinerea*, in flesh, from Stanislaus Co., Calif. Gift.
- Elms, Mrs. Ida B., 853 W 58th Place, Los Angeles, Calif.: 1 specimen of plant from Los Angeles, Calif. Gift.
- Evermann, Dr. Barton W., California Academy of Sciences, San Francisco: The Catalina Islander, Vol. XI, Nos. 2-14, 16-33, 35-47, 49-52. Vol. XII, Nos. 1-7, 9-14, 16-24, 26-30. Gift.

- Fox, Chas. L., 1621 Vallejo Street, San Francisco, Calif.: 1122 insects, mostly Diptera and Coleoptera, taken in Washington and Idaho. Gift. 1982 Hymenoptera collected by Mr. Poling in Arizona. Gift.
- Friksen, L. S. Jr., Gayle, Louisiana: 1 snake from Louisiana. Exchange.
- Frye, Dr. T. C., State University, Seattle, Washington: 2 specimens of mosses from Friday Harbor, Washington. Gift.
- Gaylord, Mrs. Lisien Nathalie, Hotel Graylyn, 20 Charlesgate, W. Boston, Mass.: 46 specimens of mosses from the Atlantic Coast and the eastern states. Gift.
- Giffard, Wm. M., Honolulu, T. H.: 320 bees of the family Megachilidae (mostly Osmias) from Tahoe region, Calif. Gift.
- Gifford, E. W., Museum of Anthropology, Affiliated Colleges, San Francisco: 1 *Gallicolumba rubescens*, in flesh, Aviary specimen, native of Marquisas Islands.
- Graff, A. J., Cazadero, Calif.: 17 specimens of plants from Cazadero, Calif. Gift.
- Gram, E., Cisco, Placer County, Calif.: 1 *Orcortyx picta plumifera*, in flesh, from Placer County, Calif. Gift.
- Griffin, Alice., El Verano, Calif.: 6 botanical specimens from Sonoma County, Calif. Gift.
- Grundell, J. G., Oakdale, Calif.: 77 insects taken at Cuero, Texas.
- Grunsky, C. E., Mechanics' Institute Bldg., San Francisco: 2 pamphlets (Collection Ant. W. M. Mensing, Amsterdam: Old Scientific Instruments 1479-1800, text and plates. Gift.
- Hack, Prof. Ingo, College of Physicians and Surgeons, 344 14th Street, San Francisco: 1 Gila Monster collected near Casa Grande, Arizona, by G. S. Woods of Casa Grande, Arizona. Gift.
- Hale, Albert, Tacoma, Washington: 1 fossil shell from Vader, Washington. Gift.
- Haley, George, 2311 Bancroft Way, Berkeley, Calif.: 56 specimens (botanical) and 10 insects from St. Paul Island. Gift.
- Hanna, G. Dallas, California Academy of Sciences, San Francisco: 1 lot of fossil fishes from near Arroyo Grande, Calif., and 47 miscellaneous pamphlets. Gift.
- Hanna, Marcus A., Gulf Production Co., Houston, Texas: 20 lots of foraminifera and small mollusca from Texas, Alabama and Louisiana. Gift.
- Hardman, Gertrude R., Tomales, Calif.: 4 specimens of plants from Sonoma County, Calif. Gift.
- Hart, Cecil, Route 2, Box 432, Los Angeles, Calif.: 23 botanical specimens from Southern California. Gift.
- Henderson, L. F., Hood River, Oregon: 627 plants from the Hood River Valley, Oregon. Purchase.

- Hendricks, Russel, 1166 Guerrero Street, San Francisco: 1 *Scapanus latimanus latimanus*, from Golden Gate Park, San Francisco. Gift.
- Henry Sotheren & Co., London, England: 1 book (van Heurck, The Microscope). Purchase.
- Herns, Prof. W. B., University of California, Berkeley, Calif.: 37 lizards from Fanning Island. Gift.
- Holmes Book Company, The, San Francisco, Calif.: 4 books: Barrows—Voyages of Discovery, etc.; Payer—New Lands within the Arctic Circle; Atkinson—Oriental and Western Siberia; Davis—Narrative of the North Pole Expedition, "Polaris". Purchase.
- Houghton, Mifflin Company, San Francisco, Calif.: Complete works of John Muir (10 volumes). Purchase.
- Howarth, Fred J., Raton, New Mexico: 5 snakes and 6 lizards from New Mexico. Gift.
- Hudson, Dr. J. W., Ukiah, Calif.: 6 botanical specimens from Ukiah, Calif. Gift.
- Huguenin, J. C., 1810 15th Street, San Francisco, Calif.: 1870 insects, largely from California. Gift.
- Hunt, C. L., 212 4th Street, Marysville, Calif.: 1 "Mill Pick" from the old Buckeye Mill at Marysville, Calif. Gift.
- Johnson, E. C., Bureau of Fisheries, L. C. Smith Bldg., Seattle, Washington: 1 *Riparia riparia*, in alcohol, from the Pribilof Islands. Gift.
- Keifer, H. H., California Academy of Sciences, San Francisco, Calif.: 10,753 insects from Revillagigedo Islands, and 1290 insects, mostly micro-lepidoptera, taken about San Francisco. Exploration.
- Kelly, Mrs. G. Earl, 1311 Grand Street, Alameda, Calif.: 28 specimens of Oregon plants. Gift.
- Klauber, L. M., San Diego, Calif.: 25 herpetological specimens from San Diego, and 29 snakes, 99 lizards, 10 frogs, 4 salamanders from San Diego and Imperial counties, 2 snakes from Washington, 1 lizard from Oregon. Gift.
- Koelz, Prof. Walter, University of Michigan, Ann Arbor, Mich.: 1 pair Mandt's Guillemot, 1 pair Iceland Gull, 1 pair Florida Cormorant, 1 pair Northern Eider, 1 pair Greater Snow Goose, 1 pair Florida Clapper Rail, 1 pair Florida Screech Owl, 1 Black-headed Jay, 1 Labrador Jay, 1 pair Florida Grackle, 1 pair Greater Ridpoll, 1 Migrant Shrike, 1 male Fish Crow. Exchange.
- Koeltz, Walter, Dept. of Zoology, University of Michigan, Ann Arbor, Michigan: 8 specimens of birds. Exchange.
- Kusche, J. August: 22 insects from California. Gift.
- Labarthe, Jules, Berkeley, Calif.: 1 lizard from Nevada. Gift.
- Larson, A. C., Alhambra, Calif.: 42 beetles from California. Gift.

- Lastreto, C. B., 260 California Street, San Francisco: The Periscope, V. I, No. 9; The China Journal (of Arts and Sciences), V. II, No. 3; Mid-Pacific Magazine, V. 29, No. 3; Proc. of the Pan-Pacific Food Conservation Congress; Bull. of the Pan-Pacific Union. N. Ser. No. 63, 64; Haldeman-Julius Monthly, Sept., Oct. 1925; The Auk, V. 39, No. 4; 40, No. 2-4; 42, No. 1-4; The Condor, V. 24, No. 3-4; 25, No. 5; 24, No. 3-4; 27, No. 1-6; Calif. Acad. Sciences Proc., 4th Ser. T. pp. & Ind. to Vol. XI, Vol. XII, Nos. 6, 23, 24, 29, 32-33; Vol. XIII, Nos. 3, 5, 27-28; Vol. XIV, Nos. 1-11, 14-17; 19 copies of "The Scientific Monthly"—11 copies of 1924, 8 copies of 1925. Gift.
- Leach, E. R., 217 Hillside Ave., Piedmont, Calif.: 84 insects from California, and 1 *Nycteris borealis teliotis* from Alameda Co., Calif. Gift.
- Mackay, Mrs., 166 Saturn Street, San Francisco: 2 turtle shells from the Galapagos Islands, and 1 box of miscellaneous shells and corals from various parts of the world. Gift.
- Macomber, A. K., Burlingame, Calif.: 1 set of antlers of *Cervus schomburgki*. Gift.
- Mailliard, Joseph, California Academy of Sciences, San Francisco: 104 bird skins, 38 mammal skins and skulls, and 1 head of Redhead Duck from Modoc County, Calif. Exploration.
- Mailliard, Joseph, California Academy of Sciences, San Francisco: 10 mammal skins and skulls from Placer County, Calif.; 136 bird skins from Placer County, Calif.; 9 mammal and 30 bird skins from Siskiyou County, Calif.; 29 mammal skins and skulls from Josephine Co., Oregon; 9 mammal skins from Josephine Co., Oregon; 69 bird skins from Josephine Co., Oregon. Exploration.
- Mailliard, Joseph, California Academy of Sciences, San Francisco: 111 bird skins; 5 mammal skins and skulls; 3 mammal skins; from Siskiyou County, Calif. Gift.
- Mailliard, Joseph, California Academy of Sciences, San Francisco: Two lots of freshwater mollusks Gift.
- Mailliard, Joseph, California Academy of Sciences, San Francisco: 16 land and freshwater shells from Siskiyou Co., Calif.; set of 14 photographs showing cutting and preparing the Big Tree (*Sequoia gigantea*), "General Noble", for shipment to the World's Fair, Chicago, in 1893. The tree grew in Fresno Co., Calif. A collection of fossil shells from the Cretaceous near Hornbrook, Calif., and 80 Moths taken in Modoc Co., Calif. Gift.
- Martin, J. O., 2826 Kelsey Street, Berkeley, Calif.: 95 insects, mostly from Del Norte Co., Calif., and 2 land shells from Arcata, Humboldt Co., Calif. Gift.
- Mason, Frank, 5533 Pulaski Avenue, Germantown, Philadelphia, Pa.: 78 Hemiptera, mostly from Africa and India. Gift.

- Mayer, Mrs. L., 849 Fulton Street, San Francisco: A miscellaneous collection of minerals, shells, etc.; Alaska garnets; black mica, Black Hills, D. T.; Tennessee marble, Madison, Indiana, Marble Works, March 14, 1883; Indian spear head, Eagle Hollow, Oliva River, Madison, Indiana, March 14, 1883; Toy monument made of U. S. greenbacks redeemed and macerated, at the U. S. Treasury, estimated at \$5,000, manufactured 715 14th Street, N. W., Washington, D. C.; 1 pair toy Eskimo boots, Eskimo Village Mid-Winter Fair, Labrador natives, April 21, 1894, 35 unlabeled minerals, Indian spear heads, etc.; 300 shells, pebbles and miscellaneous objects of various sorts. Gift.
- McAllister, M. Hall, San Francisco: Proceedings of Calif. Acad. Sci., 4th Series, Vol. XIV, Nos. 7, 8, 9, 11, 13, 14, 15.
- McDonald Miss Julia, 1221 Lombard Street, San Francisco, Calif.: 19 specimens of California plants. Gift.
- McKell, David, Foxcroft Bldg., San Francisco, Calif.: 141 insects, mostly butterflies, from Panama. Gift.
- McLaren, John, Golden Gate Park, San Francisco: 1 adult Black Bear (male) (skin); 1 raccoon (male); 1 kangaroo, in flesh; 1 *Bison bison* subsp., in flesh, from Golden Gate Park. Gift.
- McLellan, Miss M. E., California Academy of Sciences, San Francisco: 115 bird skins from Sinaloa and Nayarit, Mexico; 1 mammal skin and skull from Sinaloa, Mexico; 3 mammal skulls from Nayarit, Mexico; 79 bird skins from Sinaloa, Mexico; 100 bird skins from Sinaloa, Nayarit and Maria Madre Island, Mexico; 4 snakes, 3 lizards, 1 toad from Sinaloa, Mexico; 3 mammal skins from Sinaloa and Nayarit, Mexico; 29 bird skins from Nayarit, Mexico. Exploration.
- Merguire, G. L., 940 Oak Street, San Francisco: 1 Golden Eagle (mounted) taken one mile back of Stanford University, Calif., in 1902 by Loring Merguire and John Meares. Gift.
- Michael, Mrs. Enid, Yosemite, Calif.: 1 botanical specimen from California. Gift.
- Mitchell, Mrs. H., 1205 Hyde Street, San Francisco, Calif.: 2 specimens of California plants. Gift.
- Mouzin, Nick (for Charles White), Conservatory, Golden Gate Park, San Francisco: 1 *Lophodytes cucullatus*, in flesh, from Marin County. Gift.
- Murray, R. H., San Mateo, Calif.: 63 insects from Beresford, San Mateo Co., Calif. Gift.
- Museum of Comparative Zoology, Cambridge, Mass.: 5 lizards from Peru, 10 frogs and 4 lizards from Africa, 1 lizard from Ecuador, 2 frogs from Costa Rica. Exchange.
- Myszka, C. S., Ukiah, Calif.: 4 specimens of plants from Ukiah, Calif. Gift.



- Nast, Dr. Ernest, 4112 24th Street, San Francisco, Calif.: 291 insects, largely moths, taken in the Sierra.
- National Herbarium, The, Washington, D. C.: 428 miscellaneous botanical specimens. Exchange.
- Orcutt, C. R., San Diego, Calif.: 3 specimens of *Epiphyragmaphora orcutti* Dall, from original lot. Gift.
- Osterhout, Dr. W. J. V., The Rockefeller Institute for Medical Research, N. Y.: Calif. Acad. Sci. Proc. III Series, Vol. I, No. 6, 18 copies; Calif. Acad. Sci. Proc. III Series, Vol. II, No. 8, 127 copies; Calif. Acad. Sci. Proc. III Series, Vol. II, No. 11, 31 copies; Calif. Acad. Sci. Proc. Repr. III Series, Vol. II, No. 11, 36 copies; Univ. of Calif. Contributions from Botany Lab. No. 4, 36 copies (reprint from the Proceedings of the C. A. S. III Ser. Bot., Vol. I.)
- Pacific Oil Co., and Associated Oil Co., 79 New Montgomery Street, San Francisco: Drill cores from 273 wells containing a very large collection of fossils micro-organisms. Gift.
- Paul Elder & Company, San Francisco, California: Breasted—History of Egypt. Purchase.
- Phillips, Warren, Game Warden, Golden Gate Park, San Francisco, Calif.: 1 *Canis ochropus ochropus*, in flesh, and 1 raccoon (male) from Golden Gate Park. Gift.
- Peers, Miss Susie M., 52 Hillway Avenue, San Francisco: Current issues of "Science", for 1925. Gift.
- Piazza, Enrico, 1312 Adams Street, Brownsville, Texas: 579 moths, mostly from Texas. Purchase.
- Piper, C. V., Bureau of Plant Industry, Washington, D. C.: 3 botanical specimens from Oregon. Gift.
- Pomeroy, C. S., Bureau of Plant Industry, Riverside, Calif.: 1 specimen of plant from Riverside, Calif. Gift.
- Purdy, Carl, Ukiah, Calif.: 4 botanical specimens from Ukiah, Calif. Gift.
- Ramp, Henry, Kenwood, Calif.: 2 specimens of plants from Kenwood, Calif. Gift.
- Reagan, Dr. A. B., Cornfields via Ganada, Arizona: 36 land shells, collected at mouth of Gorge, 1 mile below Snowflake, Arizona. Gift.
- Reimers, Milton A., Montebello, Calif.: 1 botanical specimen from Los Angeles, Calif. Gift.
- Revillagigedos Expedition, California Academy of Sciences: 320 bird skins from the Revillagigedos, Tres Marias, Isabel, Guadalupe, etc.; 1 bottle of birds in alcohol; 8 bottles of bird crops in alcohol; 10 mammal skins and skulls from Tres Marias, etc.; 1 bottle bones; 1 bottle mammals in alcohol; 214 bird skins from Alijos Rock, Guadalupe, Clarion and Socorro Islands. Exploration.

- Richards, Mrs. Virginia, S. S. Sierra, San Francisco: 1 pamphlet, Australian Museum Magazine. Gift.
- Richards, Mrs. J. E., 2355 Polk Street, San Francisco, Calif.: 3 botanical specimens from Salinas, Calif. Gift.
- Rixford, G. P., 1813 Pierce Street, San Francisco, Calif.: 6 botanical specimens from Santa Barbara, Calif. Gift.
- Roberts, V., Flannigan, Nevada: 1 piece of Iceland Spar from Washoe Co., Nevada. Gift.
- Robertson, G. D., Associated Oil Company, Los Angeles, California: 20 fossil shells from the Carboniferous of Colorado. Gift.
- Robbins, Mrs. Lloyd M., 2203 Sacramento Street, San Francisco, Calif.: 1 nest from Paraguay. Gift.
- Rose, Dr. J. N., National Herbarium, Washington, D. C.: 24 botanical specimens and 2 photographs of Dudleya. Exchange.
- Royal Herbarium, Kew, Surrey, England: 112 Stolz African plants from near Lake Nyassa, 622 botanical specimens from the Himalaya Mts. Duthies Indian Plants, 175 Stolz African plants from near Lake Nyassa, 24 West Indian plants. Exchange.
- Ruiz, Marian N., Comitán, Chiapas, Mexico: Ruiz—Nueva Teoría Cosmica. Gift.
- St. Helens Petroleum Co., California: Fossil mollusks from oil well core, Sunset-Midway Field, Calif. Gift.
- Shenefield, S. J., Steinhart Aquarium, San Francisco: 1 *Scapanus latimanus latimanus*, in flesh, from Golden Gate Park. Gift.
- Slevin, J. R., California Academy of Sciences, San Francisco: 1350 specimens of reptiles and amphibians from States of Oaxaca, Vera Cruz, and Federal District of Mexico. Exploration.
- Slevin, J. R., California Academy of Sciences, San Francisco: 1 lot of land snails from Mexico; 6 specimens of land snails from Federal District of Mexico; and 1 land snail from Oaxaca, Mexico. Gift.
- Slevin, Louis S., Carmel, Calif.: 557 insects, mostly moths, taken about Carmel, Calif. Gift.
- Showalter, A. N., Palo Alto, Calif.: 8 specimens of Hepatics from northern California. Gift.
- Smith, H. J.: 1 large harlequin beetle from Panama. Gift.
- Smith, Raymond L., California Academy of Sciences, San Francisco, Calif.: 1 botanical specimen from California. Gift.
- Soares, A. J., Hayward, Calif.: 1 botanical specimen from California. Gift.
- Stacey, J. W.: 1 book (Methods of Descriptive Systematic Botany). Purchase.
- Standley, Paul C., U. S. National Museum, Washington: 1 pamphlet (Estudios Entomológicos). Gift.

- Stechert, G. E.: 8 volumes, *Verhandlungen, Zool.-Bot. Verins, Wien* (Vols. 3, 4, 6, 10, 11, 32, 42, 43). Purchase.
- Steinbeck, J. W., 611 Bristol Avenue, Stockton, Calif.: 1 *Polyplectron chinquis*, in flesh (domestic), 1 *Gallicolumba rubescens*, in flesh, aviary specimen from Marquesas Islands; 1 *Goura victoria*, in flesh (domestic). Gift.
- Steinhart Aquarium, Golden Gate Park, San Francisco, Calif.: 1 *Phoca richardi geronimensis*, juvenile, in flesh, San Francisco; 1 turtle from India; 3 salamanders from Virginia. Gift.
- Sutcliffe, Mrs. E. C., 700 Lake Street, San Francisco, Calif.: 20 botanical specimens from Salmon Lake, Calif. Gift.
- Swartz, Mrs. Peter, 3220 Mission Street, San Francisco: 1 mounted specimen of squirrel from Guatemala. Gift.
- U. S. Customs, through Mr. F. Morales: 1 Quetzal. Gift.
- U. S. Government Printing Office, Washington, D. C.: U. S. Official Postal Guide, July, 1925. Purchase.
- U. S. Naval Receiving Station Personnel, Pier 14, Embarcadero, San Francisco: 5 specimens of *Heloderma horridum* (Mexican Beaded Lizard). Gift.
- Van Duzee, Edward P., California Academy of Sciences, San Francisco, Calif.: The Van Duzee Collection of Hemiptera, containing about 30,000 specimens. Gift.
- Van Duzee, E. P., California Academy of Sciences, San Francisco: 1732 insects from western Oregon, and 776 insects, mostly from Mill Valley, Calif. Exploration.
- Van Duzee, E. P., California Academy of Sciences, San Francisco: 2 *Neotoma fuscipes fuscipes*, in flesh, from Marin County, California. Gift.
- Van Dyke, Dr. E. C., University of California, Berkeley, Calif.: 1494 insects from Oregon and eastern Washington, and 657 miscellaneous insects, largely from California. Gift.
- Van Dyke, Dr. Edwin C., University of California, Berkeley, Calif.: The Van Dyke Collection of Coleoptera, about 100,000 specimens. Gift.
- Van Dyke, Dr. E. C., Berkeley, Calif.: 8 toads and 1 salamander from Washington; 2 frogs, 1 snake and 3 lizards from California. Gift.
- Vortriede, William, Sacramento, Calif.: 80 botanical specimens from Eldorado County, Calif. Gift.
- Walther, Eric, Golden Gate Park, San Francisco, Calif.: 115 specimens of exotic plants and 66 insects from Golden Gate Park, San Francisco. Gift.
- Ward, Melbourne, Sydney, Australia: 5 lizards from Australia. Gift.
- Webb, Mary E., 26 Micheltorena Street, Santa Barbara, Calif.: 2 botanical specimens from Ventura, Calif. Gift.

- Werdermann, Dr. E., Santiago, Chile: 300 specimens of Chilean plants, mostly new. Purchase.
- Werdermann, Dr. E., Casilla 3457, Santiago, Chile: 376 botanical specimens from Chile. Purchase.
- White, Mary E., Waldo, Oregon: 20 botanical specimens from Waldo, Oregon. Gift.
- Williman, E., Pescadero, Calif.: 2 snakes and 1 lizard from Pescadero, Calif. Gift.
- Woods, Frank M., Argonaut Hotel, San Francisco, Calif.: 3 books: Schwatka's Hunting and Fishing Adventures in the Arctic Regions, White's Rediscovered Country, and Wright's Grizzly Bear; also 171 miscellaneous insects from about San Francisco, Calif. Gift.
- Wright, Mrs. Dora E., San Francisco, Calif.: 4 pieces of highly fossiliferous limestone from Taishan, Chile Province, China. Gift.
- Wright, Mrs. E. C., Mono Lake, Calif.: 71 plants from the Mono Lake region, California. Gift.
- Wright, John T., Eureka Garage, Eureka, Calif.: 1 fossil coral from Taishan, China; 53 bird skins from Humboldt County, California; 11 bird skins from Trinity Co., California; 30 bird skins from Humboldt County, California; 1 *Sus*, mounted head; 1 *Sus*, skull; 1 *Hydropotes inermis*, mounted head; 1 *Felis chinensis*, from China. Gift.
- Zanelli, Cecilia, Plantation, Calif.: 1 botanical specimen from California. Gift.

FINANCIAL STATEMENTS

REPORT OF THE TREASURER

For the fiscal year ending December 31, 1925

January 1, 1925, Balance with Crocker National Bank..... \$ 3,374.61

Receipts:

Dues	\$ 4,327.75
Charles Crocker Scientific Fund Endow- ment Income	1,693.05
James Lick Endowment Income.....	68,137.11
General Income	17,918.61
John W. Hendrie Endowment Income.....	960.00
U. S. Treasury Certificates.....	6,000.00
Bills Receivable	11,000.00
Bills Receivable, Ignatz Steinhart Trust....	10,000.00
Ignatz Steinhart Trust Interest.....	535.00
Interest	835.54
Ogden Mills Donation.....	1,000.00
Publication	647.01
W. G. Wright Fund	56.00
Wild Life Protection Fund.....	600.00
Post Card Sales.....	1,534.84
Tools and Equipment.....	50.00
Park Birds Hand Book Fund.....	20.00
Sundry Accounts	510.90
	\$125,825.81
	\$129,200.42

REPORT OF THE TREASURER—Continued

Expenditures:

Interest	\$13,277.43
Contingent Fund	546.51
Salary Expense General.....	18,655.82
Museum Department Appropriations.....	11,570.88
Museum Department Salaries.....	14,212.69
Publication	3,557.62
Holbrook Installation	1,796.19
Grizzly Bear Group.....	318.39
Library	3,940.55
Steinhart Aquarium Equipment.....	3,188.40
Bills Receivable, Ignatz Steinhart Trust.....	10,000.00
Bills Payable	15,000.00
Bills Receivable	16,000.00
U. S. Treasury Certificates.....	2,000.00
Revillagigedos Expedition	2,435.27
Sundry Creditors	11,449.34
Expense	2,615.88
Wild Life Protection Fund.....	302.40
Insurance	1,663.16
Earthquake Sinking Fund.....	400.00
	————— \$132,930.53

December 31, 1925, Balance due the Crocker National Bank... \$ 3,730.11

M. HALL McALLISTER, *Treasurer.*

Examined and found correct,

McLAREN, GOODE & Co., *Certified Public Accountants.*

San Francisco, Calif., February 17, 1926.

INCOME AND OPERATING EXPENSES

For the fiscal year, January 1, 1925, to December 31, 1925

Income:

Charles Crocker Scientific Fund Endowment	
Income	\$ 1,693.05
James Lick Endowment Income	68,137.11
General Income	17,918.61
Dues	4,427.75
Interest from Temporary Investments.....	835.54
Profit on Post Card Sales.....	620.20
	\$93,632.26
Total Income	

Expenditures:

General Expense	\$ 2,945.63
Salaries	32,149.33
Interest	13,277.43
Insurance	1,697.16
	\$50,069.55
Total Expenditures	
Net Income Transferred to Surplus Account.	\$43,562.71

SUMMARY OF SURPLUS ACCOUNT

December 31, 1925

Balance January 1, 1925..... \$434,370.21

Additions:

Net Income for Year ended December 31, 1925.	\$43,562.71	
Sale of Microscope.....	50.00	
Henry M. Holbrook Bequest of Dec. 4, 1924...	2,000.00	
Income from J. W. Hendrie Endowment Account	4,335.00	
W. G. Wright Fund.....	97.92	
		<hr/>
Total Additions to Surplus.....	\$ 50,045.63	
		<hr/>
		\$484,415.84

Deductions:

<i>Depreciation:</i>		
Office Furniture	\$ 292.60	
Commercial Building	10,336.37	
Museum Building	3,840.52	
Tools and Equipment	867.54	
		<hr/>
	\$ 15,337.03	
		<hr/>
Surplus, December 31, 1925.....		\$469,078.81

IGNATZ STEINHART TRUST

December 31, 1925

Amount of Fund:

Bequest from the Ignatz Steinhart Estate....	\$250,000.00
Interest from temporary investments.....	56,012.70
	<hr/>
	\$306,012.70

Disposition of Fund:

Steinhart Aquarium Construction.....	\$263,390.29	
Steinhart Aquarium Equipment.....	26,901.73	
Temporary Investments:		
Bills Receivable	10,000.00	
Revolving Fund	5,000.00	
Uninvested cash on hand.....	720.68	
	<hr/>	\$306,012.70

BALANCE SHEET

December 31, 1925

*Assets**Property:*

Real Estate, 831-833 Market Street.....	\$600,000.00	
Commercial Building, 833 Market Street....	516,818.66	
Real Estate, Jessie Street.....	8,083.65	
		\$1,124,902.31

Museum, Golden Gate Park:

Construction	\$192,025.92	
General Collections	158,482.01	
Library and Equipment	95,103.11	
Tools and Equipment	36,779.73	
Office Furniture	4,179.96	
		\$ 486,570.73

Investment Securities	14,200.00
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Ignatz Steinhart Trust:

Bills Receivable	\$ 10,000.00	
Steinhart Aquarium Construction.....	263,390.29	
Steinhart Aquarium Equipment	26,901.73	
Steinhart Aquarium Revolving Fund....	5,000.00	
Uninvested cash on hand.....	720.68	
		\$ 306,012.70

Current Assets:

Bills Receivable	\$ 13,000.00	
Foreign Exchange	36.84	
Post Cards in Stock.....	2,495.99	
Cash on hand	124.78	
Sundry Accounts	143.10	
		\$ 15,800.71

Total	\$1,947,486.45
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BALANCE SHEET—Continued*Liabilities**Endowments:*

James Lick Endowment.....	\$804,902.31	
Charles Crocker Scientific Fund Endowment.	20,000.00	
John W. Hendrie Endowment.....	13,600.00	
		\$ 838,502.31

Ignatz Steinhart Trust:

Ignatz Steinhart Trust.....	\$250,000.00	
Ignatz Steinhart Trust Interest.....	56,012.70	
		\$ 306,012.70
Alvord Bequest Botanical		5,000.00
W. G. Wright Fund		81.28
Ogden Mills Donation.....		1,000.00
Park Birds Hand Book Fund.....		20.00
Wild Life Protection Fund.....		432.56
Reserve for Depreciation		86,508.74
Bills Payable		235,000.00
Sundry Creditors		1,399.26
Amount due Ignatz Steinhart Trust.....	\$ 720.68	
Crocker National Bank (overdraft).....	3730.11	
		\$ 4,450.79
Surplus		469,078.81
		\$1,947,486.45

Total

W. W. SARGEANT,

*Secretary,**Board of Trustees.*

We have examined the foregoing Balance Sheet, together with the books and accounts of the California Academy of Sciences, and, in our opinion, it is properly drawn up so as to exhibit a true and correct view of the Academy's affairs, as shown by the books.

MCLAREN, GOODE & Co.,
Certified Public Accountants.

San Francisco, Calif.
 February 17, 1926.